

AUTOPROTECTED OPTICAL COMMUNICATION RING NETWORK

ABSTRACT OF THE DISCLOSURE

An autoprotected optical communication ring network includes a first and a second optical carrier having opposite transmission directions and a plurality of optically reconfigurable nodes optically connected along the first and the second optical carrier and adapted to communicate in pairs on links susceptible to failure, the ring network having a normal operative condition in which the nodes of each pair are optically configured so as to exchange optical signals on a working arc path at a respective first wavelength ( $\lambda_x$ ) on the first carrier and at a respective second wavelength ( $\lambda_y$ ) different from the first wavelength ( $\lambda_x$ ) on the second carrier, the working path having a complementary arc path defining a protection arc path in which the first wavelength ( $\lambda_x$ ) on the first carrier and the second wavelength ( $\lambda_y$ ) on the second carrier can be used for further links.